

#### The State of New Hampshire

#### Department of Environmental Services



#### Michael P. Nolin Commissioner

# AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS

			Deviation						
	Actual	Normal	from	Percent					
	Rainfall	Rainfall	Normal	of					
	(inches)	(inches)	(inches)	Normal					
Coastal Drainage: F	Rockingham, Straffo	ord counties	, , , , , , , , , , , , , , , , , , , ,						
four month	17.24	12.84	4.40	134%					
six month	23.74	19.90	3.84	119%					
nine month	36.99	30.96	6.03	119%					
twelve month	48.51	40.56	7.95	120%					
Southern Interior: Belknap, Hillsborough, Merrimack counties									
four month	14.56	12.99	1.57	112%					
six month	20.87	20.07	0.80	104%					
nine month	32.97	31.03	1.95	106%					
twelve month	44.19	41.08	3.11	108%					
South Western: Che	shire Sullivan cour	ation							
four month	11.73	13.14	-1.41	89%					
six month	17.33	20.08	-2.76	86%					
nine month	29.67	30.82	-1.16	96%					
twelve month	39.74	41.18	-1.45	96%					
twoive month	55.74	41.10	-1.40	90 70					
White Mountain: Car	rroll, Grafton counti	es							
four month	11.94	12.46	-0.53	96%					
six month	18.97	19.08	-0.12	99%					
nine month	34.55	29.88	4.67	116%					
twelve month	45.98	40.66	5.32	113%					
North Country: Coos county									
four month	10.89	11.60	-0.71	94%					
six month	18.60	17.76	0.84	105%					
nine month	34.95	28.12	6.83	124%					
twelve month	47.12	40.24	6.88	117%					

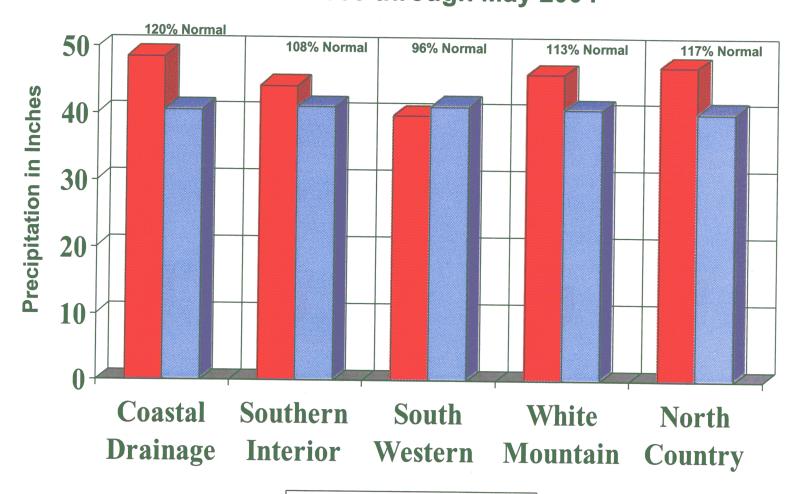
four month period : Feb 2004 - May 2004 six month period : Dec 2003 - May 2004 nine month period : Sep 2003 - May 2004 twelve month period: June 2003 - May 2004

Source: Northeast River Forecast Center, NH Des Dam Bureau

Telephone: (603) 271-3503 • Fax: (603) 271-7894 • TDD Access: Relay NH 1-800-735-2964

DES Web site: www.des.nh.gov

# TWELVE MONTH AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS from June 2003 through May 2004



Actual Normal

NH DES Dam Bureau, Northeast River Forecast Center

#### **MONTHLY PRECIPITATION DATA FOR N.H COUNTIES**

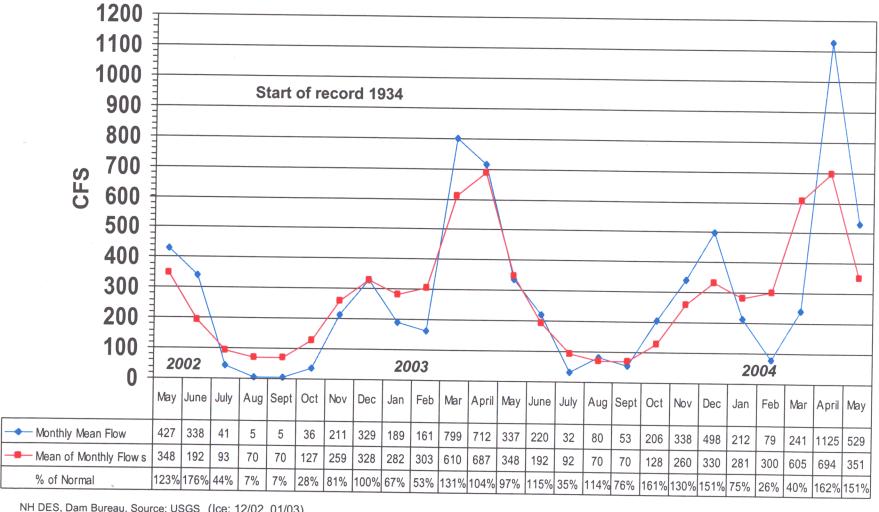
										Serv	ices		
		2003							200	04			
0		JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY
Coastal drainag	_											7 11 11 11	1417 (1
STRAFFORD	actual	2.88	1.90	5.77	5.69	5.63	2.56	5.64	0.70	1.34	1.50	8.23	6.68
	normal	3.04	3.12	3.28	3.32	3.48	4.12	3.76	3.12	2.72	3.20	3.40	3.28
	deviation	-0.16	-1.22	2.49	2.37	2.15	-1.56	1.88	-2.42	-1.38	-1.70	4.83	
ROCKINGHAM	actual	2.88	1.95	7.66	4.64	5.15	2.83	5.67	1.00	1.25	1.67		3.40
	normal	3.12	3.20	3.44	3.40	3.56	4.24	3.92	3.32	2.84	3.40	8.44	5.36
	deviation	-0.24	-1.25	4.22	1.24	1.59	-1.41	1.75	-2.32	-1.59	-1.73	3.44	3.40
Average	actual	2.88	1.93	6.72	5.17	5.39	2.70	5.66	0.85	1.30		5.00	1.96
	normal	3.08	3.16	3.36	3.36	3.52	4.18	3.84	3.22		1.59	8.34	6.02
	deviation	-0.20	-1.24	3.36	1.81	1.87	-1.49	1.82	-2.37	2.78	3.30	3.42	3.34
Southern Interior	r						1.10	1,02	-2.31	-1.49	-1.72	4.92	2.68
HILLSBOROUG	H actual	2.78	1.73	5.81	4.64	4.33	2.45	F 60	4.00	4.00			
	normal	3.36	3.32	3.68	3.60	3.72	4.32	5.63	1.00	1.20	1.39	8.25	4.27
	deviation	-0.58	-1.59	2.13	1.04	0.61	-1.87	4.16	3.60	3.16	3.88	3.56	3.52
MERRIMACK	actual	2.01	2.52	7.38	5.39			1.47	-2.60	-1.96	-2.49	4.69	0.75
	normal	3.20	3.28	3.44	3.36	4.65	2.62	5.83	0.74	1.18	1.40	7.36	5.71
	deviation	-1.19	-0.76	3.94	2.03	3.44	4.00	3.92	3.16	2.84	3.40	3.36	3.36
BELKNAP	actual	1.58	2.10	7.73		1.21	-1.38	1.91	-2.42	-1.66	-2.00	4.00	2.35
	normal	3.16	3.44	3.28	4.77	4.38	3.09	5.26	0.47	0.76	1.06	5.80	5.29
	deviation	-1.58	-1.34	4.45	3.36	3.28	3.80	3.48	2.92	2.44	2.92	3.24	3.28
Average	actual	2.12	2.12		1.41	1.10	-0.71	1.78	-2.45	-1.68	-1.86	2.56	2.01
vorago	normal	3.24	3.35	6.97	4.93	4.45	2.72	5.57	0.74	1.05	1.28	7.14	5.09
	deviation	-1.12	-1.23	3.47	3.44	3.48	4.04	3.85	3.23	2.81	3.40	3.39	3.39
outh Western	acviation	-1,12	-1.20	3.51	1.49	0.97	-1.32	1.72	-2.49	-1.77	-2.12	3.75	1.70
HESHIRE	actual	2.11	0.47	F 70	,								
/ ILOI III L	normal	3.44	2.17	5.72	4.90	3.11	2.85	4.39	0.83	0.94	1.13	4.92	4.87
			3.28	3.68	3.52	3.36	3.84	3.76	3.28	2.80	3.48	3.40	3.44
ULLIVAN	deviation actual	-1.33	-1.11	2.04	1.38	-0.25	-0.99	0.63	-2.45	-1.86	-2.35	1.52	1.43
OLLIVAN		1.88	2.18	6.08	5.67	4.66	3.49	5.29	0.68	1.11	1.14	4.79	4.56
	normal	3.36	3.32	3.64	3.44	3.48	3.84	3.72	3.12	2.80	3.36	3.44	3.56
vorago	deviation	-1.48	-1.14	2.44	2.23	1.18	-0.35	1.57	-2.44	-1.69	-2.22	1.35	1.00
verage	actual	2.00	2.18	5.90	5.29	3.89	3.17	4.84	0.76	1.03	1.14	4.86	4.72
	normal	3.40	3.30	3.66	3.48	3.42	3.84	3.74	3.20	2.80	3.42	3.42	3.50
0.14 B.4	deviation	-1.41	-1.13	2.24	1.81	0.47	-0.67	1.10	-2.45	-1.78	-2.29	1.44	1.22
hite Mountain											Superior.		4 · · ·
RAFTON	actual	2.08	4.25	5.16	5.15	5.29	3.76	6.36	0.58	0.85	1.11	3.64	5.31
	normal	3.48	3.84	3.64	3.48	3.48	3.76	3.64	2.92	2.60	3.04	3.24	3.56
	deviation	-1.40	0.41	1.52	1.67	1.81	0.00	2.72	-2.34	-1.75	-1.93	0.40	1.75
ARROLL	actual	2.35	2.91	6.10	5.80	7.02	4.15	6.52	0.60	1.36	1.17	The state of the s	
	normal	3.44	3.68	3.48	3.44	3.52	3.92	3.68	3.00	2.60	3.08	5.21	5.22
	deviation	-1.09	-0.77	2.62	2.36	3.50	0.23	2.84	-2.40	-1.24	Structure Witness and Control	3.32	3.48
erage	actual	2.22	3.58	5.63	5.48	6.16	3.96	6.44	0.59	1.11	-1.91	1.89	1.74
	normal	3.46	3.76	3.56	3.46	3.50	3.84	3.66	2.96		1.14	4.43	5.27
	deviation	-1.25	-0.18	2.07	2.02	2.66	0.12	2.78	-2.37	2.60	3.06	3.28	3.52
orth Country				-7 OVE 2017		2.00	V-14	2110	-2.31	-1.50	-1.92	1.15	1.75
oos	actual	3.64	4.20	4.33	4.71	6.95	4.60	6.05	0.00	4.0-			
	normal	4.16	3.96	4.00	3.40	3.48	4.69	6.85	0.86	1.37	1.52	3.20	4.80
	deviation	-0.52	0.24	0.33	1.31	3.46	3.48	3.44	2.72	2.48	2.76	3.04	3.32
	manufacture and the second	out of the same of	A SECTION ASSESSMENT	0.00	1.01	5.47	1.21	3.41	-1.86	-1.11	-1.24	0.16	1.48

Source: Northeast River Forecast Center, NH DES Dam Bureau

### LAMPREY RIVER near NEWMARKET NH Gage# 01073500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

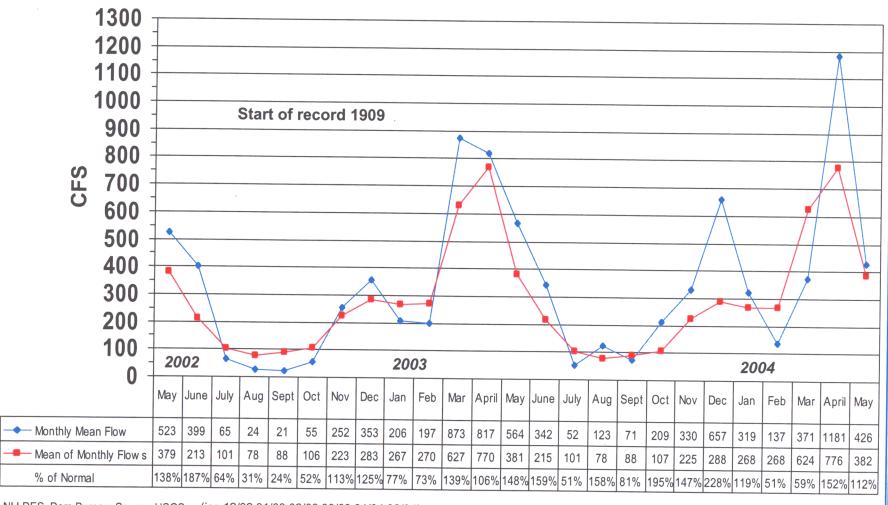


NH DES, Dam Bureau, Source: USGS (Ice: 12/02, 01/03)

### SOUHEGAN RIVER at MERRIMACK NH Gage# 01094000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

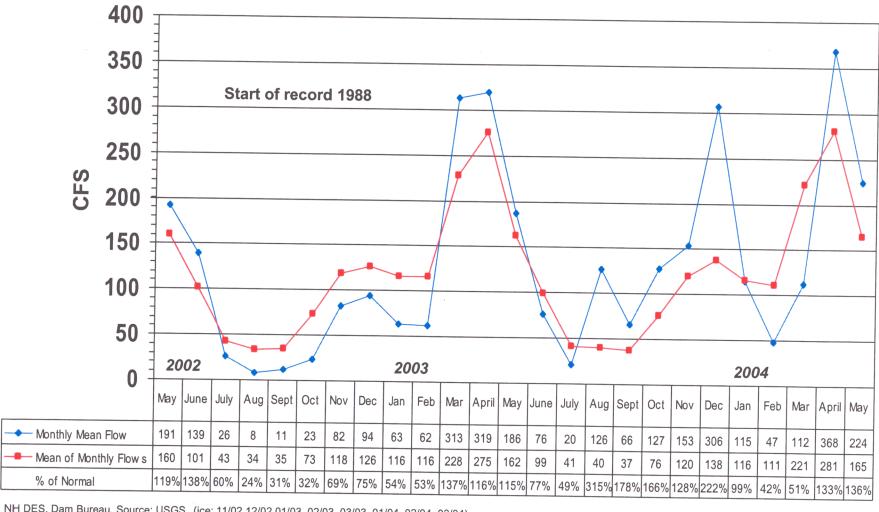


NH DES, Dam Bureau, Source: USGS (ice-12/02,01/03,02/03,03/03,01/04,02/04)

## SOUCOOK RIVER at PEMBROKE ROAD near CONCORD NH, Gage# 01089100



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

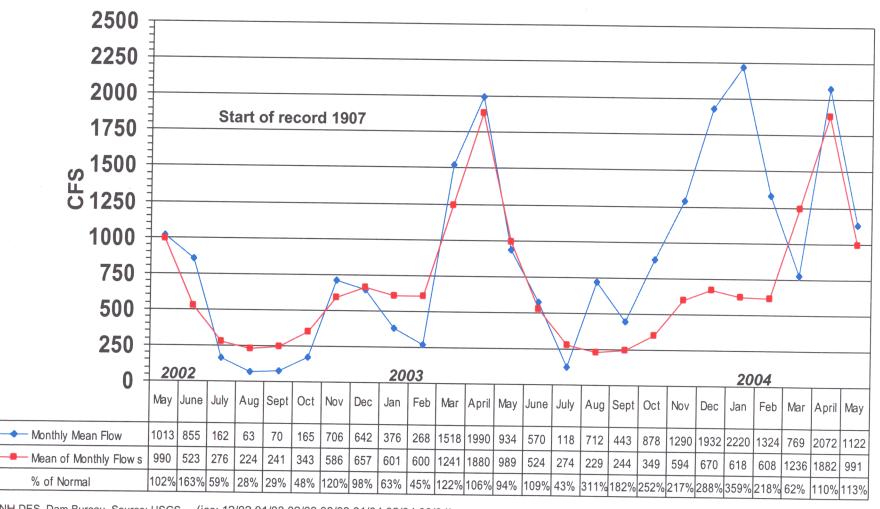


NH DES, Dam Bureau, Source: USGS (ice: 11/02,12/02,01/03, 02/03, 03/03, 01/04, 02/04, 03/04).

# ASHUELOT RIVER at HINSDALE NH Gage# 01161000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

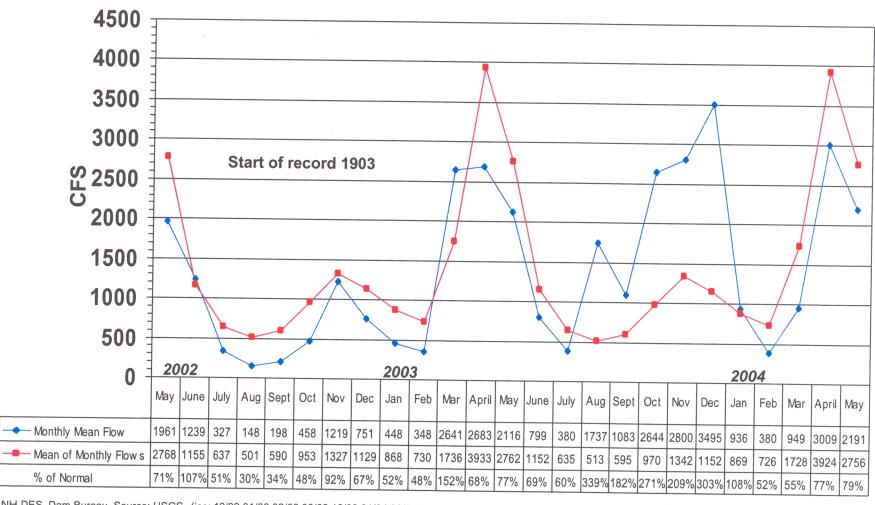


NH DES, Dam Bureau, Source: USGS (ice: 12/02,01/03,02/03,03/03,01/04,02/04,03/04)

# PEMIGEWASSET RIVER at PLYMOUTH NH Gage# 01076500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



NH DES, Dam Bureau, Source: USGS (ice: 12/02,01/03,02/03,03/03,12/03,01/04,02/04,03/04)

#### STREAMFLOW DATA FOR SELECTED NH STATIONS AS OF JUNE 3, 2004

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A Samuel 10	
A STATE OF	NEW PROPERTY

	Flow?
number Station name 6/3/2004 6/3/2004 Flow (cfs) Flow (cfs) Daily Flow (cfs) Median Flow? Flow?	
Androscoggin River Basin	
01052500 Diamond River near Wentworth Location, NH 605 280 22 16 6.8 216% FALSE FALSE	FALSE
01053500 Androscoggin River at Errol, NH 1,930 1,790 500 451 0 108% FALSE FALSE	FALSE
01054000 Androscoggin River near Gorham, NH 2,820 2,365 1300 1310 795 119% FALSE FALSE	FALSE
Saco River Basin	
01064500 Saco River near Conway, NH 1,170 836 105 97 66 140% FALSE FALSE	FALSE
01064801 BEARCAMP RIVER AT SOUTH TAMWORTH, NH 165 71 6 4.8 4.5 232% FALSE FALSE	FALSE
Piscatagua River Basin	
01072100 SALMON FALLS RIVER AT MILTON, NH 222 108 27 24 16 206% FALSE FALSE	FALSE
01073500 LAMPREY RIVER NEAR NEWMARKET, NH 456 176 7 5 — 259% FALSE FALSE	TALOL
Merrimack River Basin	
01074520 EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN, NH 436 314 55 49 46 139% FALSE FALSE	FALSE
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, NH 765 536 65 56 - 143% FALSE FALSE	
01076000 BAKER RIVER NEAR RUMNEY, NH 328 162 18 15 - 202% FALSE FALSE	
01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH 1,900 1,125 130 118 45 169% FALSE FALSE	FALSE
01078000 SMITH RIVER NEAR BRISTOL, NH 185 86 7 6.2 2.7 215% FALSE FALSE	FALSE
01081000 WINNIPESAUKEE RIVER AT TILTON, NH 1,270 682 143 136 48 186% FALSE FALSE	FALSE
01081500 MERRIMACK RIVER AT FRANKLIN JUNCTION, NH 4,140 2,550 520* 551 162% FALSE	
01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH 99 124 5.5 6.3 - FALSE FALSE	
01085000 CONTOOCOOK RIVER NEAR HENNIKER, NH 633 441 40 37 144% FALSE FALSE	
01085500 CONTOCCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH 704 447 35 39 157% FALSE FALSE	
01086000 WARNER RIVER AT DAVISVILLE, NH 254 227 6 5.3 112% FALSE FALSE	
01087000 BLACKWATER RIVER NEAR WEBSTER, NH 815 157 15.5 13.7 - 519% FALSE FALSE	
01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH 108 47 1.7 1.2 - 230% FALSE FALSE	
01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH 392 241 8 8.8 – 163% FALSE FALSE O1092000 MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH 7.110 4.410 560* 644 98* 161% FALSE	
77 PER PARTY FROM 6 PRICA NA. 19 NEED GO. 19 NEW STORT	
01094000 SOUHEGAN RIVER AT MERRIMACK, NH 311 165 15 12.9 – 188% FALSE FALSE	
Connecticut River Basin	
01129200 CONNECTICUT R BELOW INDIAN STREAM NR PITTSBURG, NH 502 242 50 42 30 207% FALSE FALSE	FALSE
01129440 MOHAWK RIVER NEAR COLEBROOK NH 73 47 8.5 7.4 5.3 155% FALSE FALSE	FALSE
01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH 2,410 1,060 220 176 108 227% FALSE FALSE	FALSE
01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH 739 412 55 49 32 179% FALSE FALSE	FALSE
01131500 CONNECTICUT RIVER NEAR DALTON, NH 4,860 2,410 410 389 115 202% FALSE FALSE	FALSE
01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH 263 210 32 28 21 125% FALSE FALSE	FALSE
01138500 CONNECTICUT RIVER AT WELLS RIVER, VT 4,840 5,010 480* 690 152* 97% FALSE	
01144500 CONNECTICUT RIVER AT WEST LEBANON, NH 10,900 6,525 380* 902 82* 167% FALSE	
01145000 MASCOMA RIVER AT WEST CANAAN, NH 134 102 5.6 4.4 - 131% FALSE FALSE	
01150500 MASCOMA RIVER AT MASCOMA, NH 308 164 27 26 2 188% FALSE FALSE	FALSE
01152500 SUGAR RIVER AT WEST CLAREMONT, NH 578 275 40 38 14 210% FALSE FALSE	FALSE
01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH 10,300 9,335 260* 1058 115* 110% FALSE	Carle
01158000 ASHUELOT RIVER BELOW SURRY MT DAM, NEAR KEENE, NH 309 113 4.5 2.7 0.4 273% FALSE FALSE	FALSE
01158600 OTTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NH 121 51.5 1.6 1.1 0.3 235% FALSE FALSE	FALSE
01160350 ASHUELOT RIVER AT WEST SWANZEY, NH 639 353 32 181% FALSE	

<sup>\*</sup>Flow duration and record low mean daily flow significantly affected by reservoir operations

Source: USGS, NH DES

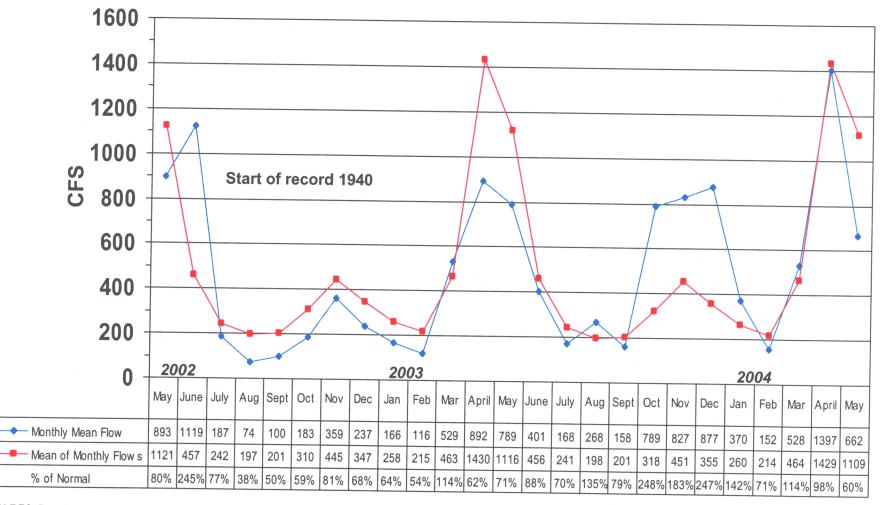
SUMMARY	Below	Below	Below
	0.99	7Q10	Record
	Flow?	Flow?	Flow?
FALSE =	33	37	20
TRUE =	0	0	0

<sup>\*\*</sup>Estimated

# UPPER AMMONOOSUC RIVER near GROVETON NH Gage# 01130000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



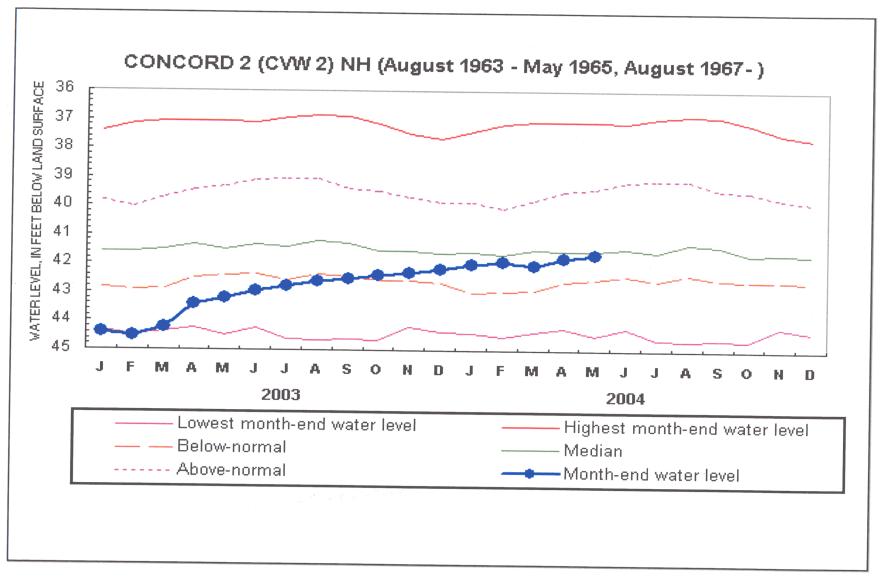
NH DES, Dam Bureau, Source: USGS(ice:11/02,12/02,01/03,02/03,03/03,04/03,12/03,01/04,02/04,03/04)

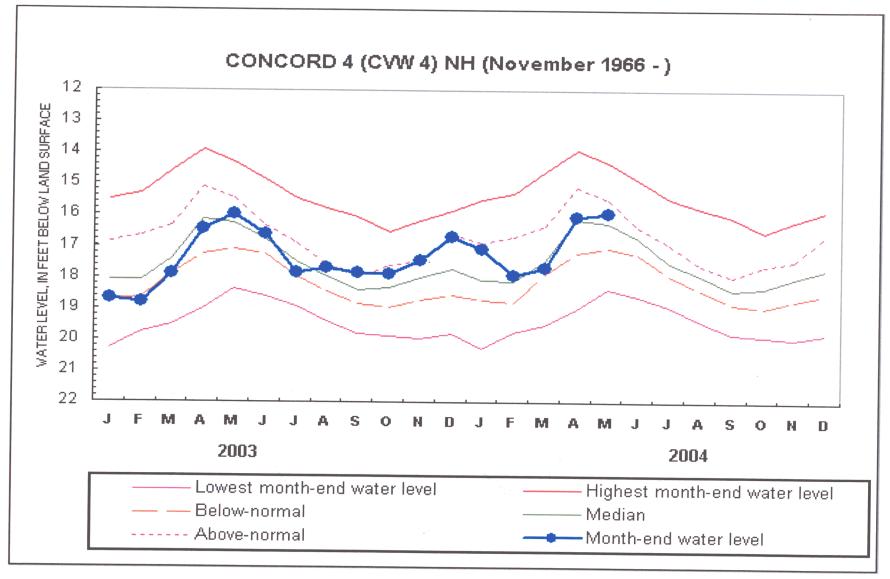
### **New Hampshire Groundwater Levels for May 2004**

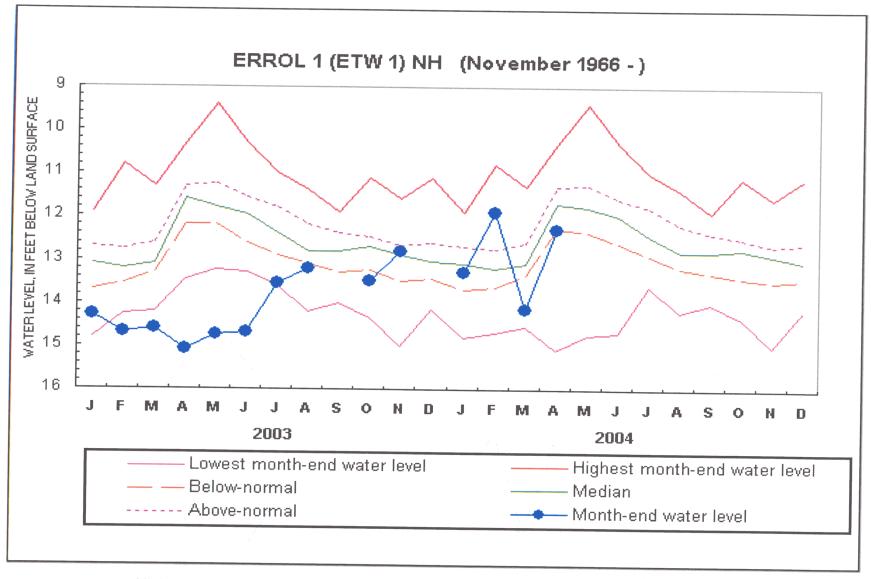


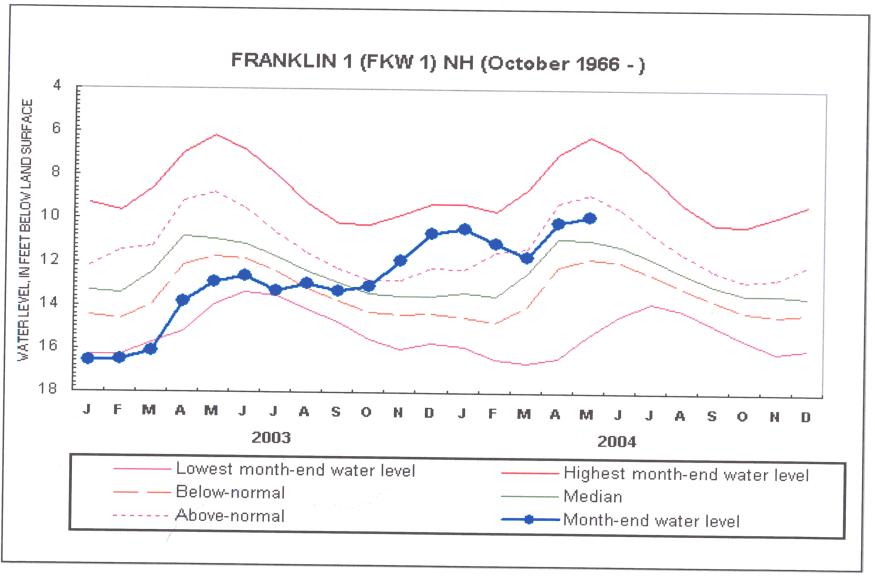
	START OF	WATER LEVEL BELOW	NET CHANGE	NET CHANGE			DEPARTURE FROM	PERCENT OF	
WELL	RECORD	SURFACE DATUM (ft)	IN ONE MONTH (ft)	IN ONE YEAR (ft)	MEDIAN	RANGE (ft)	MONTHLY MEDIAN (FT)	RANGE	STATUS
ALBANY 14	1995	5.55	-0.98	-0.25	5.30	.55	-0.25	-45.5	NORMAL
ALBANY 15	1995	7.51	-1.59	-0.47	7.04	.83	-0.47	-56.6	BELOW NORMAL
BARNSTEAD 10	1995	2.04	+0.54	+0.31					
CAMPTON 34	1988	11.42	+0.03	+0.33	11.86	1.06	+0.44	41.5	NORMAL
COLEBROOK 73	1995			A	7.20				1.00 m
CONCORD 2	1963	41.67	+0.15	+1.54	41.56	2.92	-0.11	-3.8	NORMAL
CONCORD 4	1966	15.96	+0.10	+0.04	16.25	1.95	+0.29	14.9	NORMAL
DEERFIELD 46	1984	37.53	-0.13	+0.31	38.07	0.71	+0.54	76.1	ABOVE NORMAL
ENFIELD 30	1990	1.92	+0.27	+0.35	3.15	1.39	+1.23	88.5	ABOVE NORMAL
ERROL 1	1966				11.80				
FRANKLIN 1	1966	9.87	+0.27	+3.06	10.93	4.75	+1.06	22.3	NORMAL
GREENFIELD 75	1995	60.51	+0.95	+1.59	60.43	4.58	-0.08	-1.7	NORMAL
HOOKSETT 5	1965	47.29	-0.23	-0.70	46.64	2.09	-0.65	-31.1	NORMAL
KEENE 2	1963	3.42	-0.42	-0.03	3.43	3.26	+0.01	0.3	NORMAL
LANCASTER 1	1966	0.10	+0.90	+1.75	1.35	2.08	+1.25	60.1	ABOVE NORMAL
LEE 1	1953	29.90	+0.72	+0.97	30.74	1.55	+0.84	54.2	ABOVE NORMAL
LISBON 19	1990	12.57	+0.33	+0.95	13.49	1.13	+0.92	81.4	ABOVE NORMAL
NASHUA 218	1964	26.87	-0.66	+0.09	27.39	1.29	+0.52	40.3	ABOVE NORMAL
NEW DURHAM 53	1986	18.66	-0.10	+0.27	18.94	0.54	+0.28	51.9	ABOVE NORMAL
NEW LONDON 1	1947	6.21	-0.94	+0.50	6.45	3.60	+0.24	6.7	NORMAL
NEWPORT 3	1995	4.57	+0.28	+0.44	5.17	1.39	+0.60	43.2	ABOVE NORMAL
NEWPORT 6	1995	4.65	+0.27	+0.45	5.20	1.45	+0.55	37.9	NORMAL
OSSIPEE 38	1995	34.80	+0.23	+0.12	34.34	1.55	-0.46	-29.7	NORMAL
SHELBURNE 2	1995	3.82	-0.37	+0.49	3.91	1.11	+0.09	8.1	NORMAL
WARNER 1	1965	28.50	-0.40	-0.55	28.37	2.71	-0.13	-4.8	NORMAL

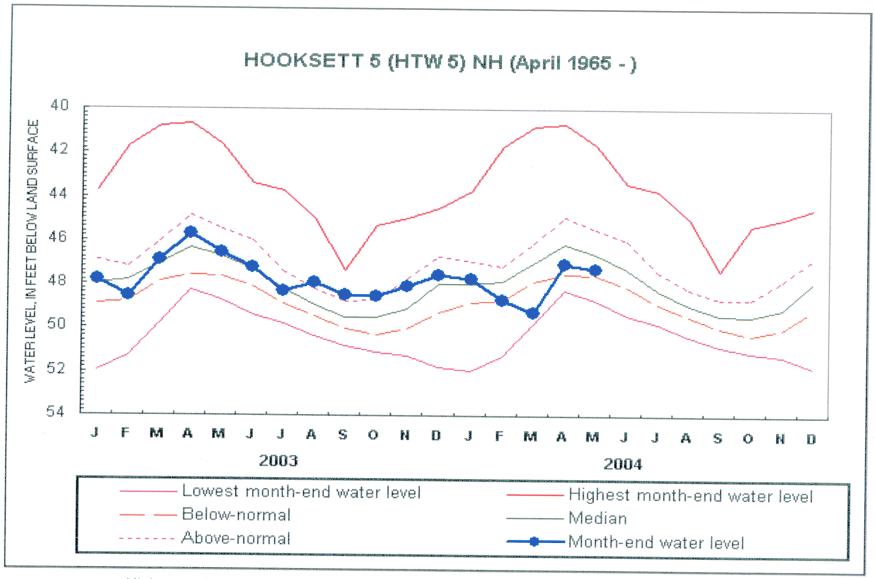
Source: USGS, NH DES

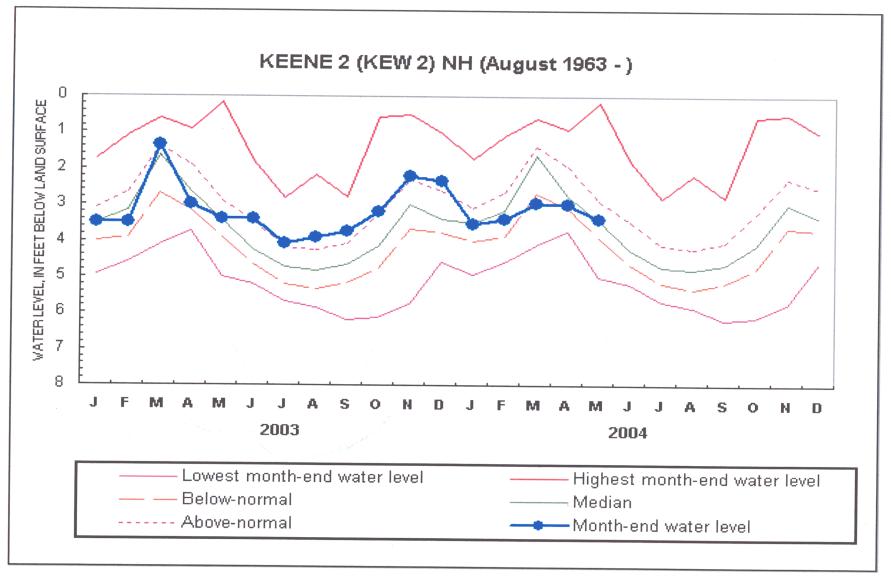


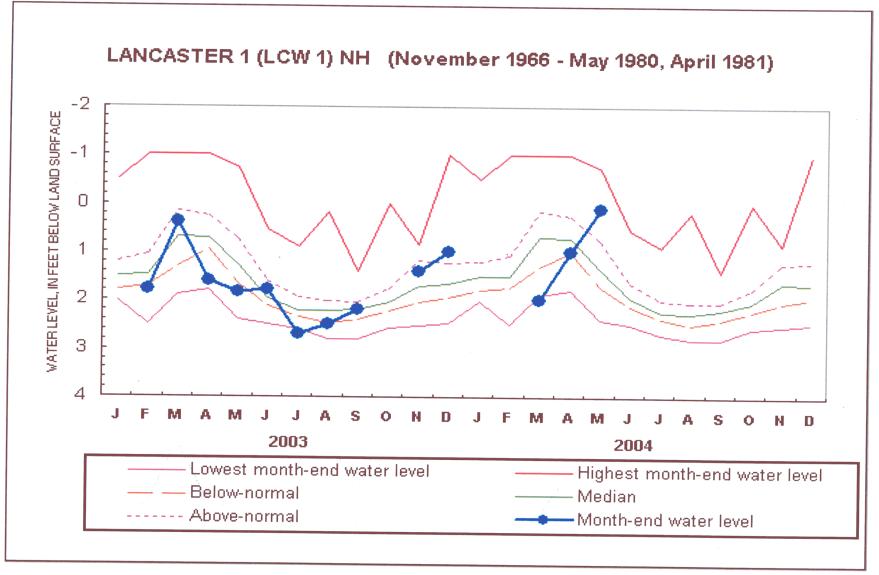


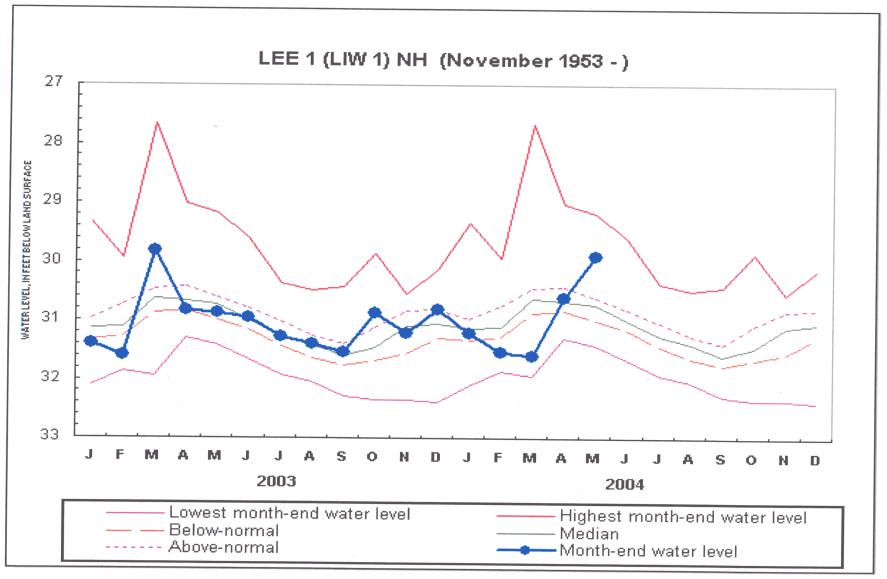




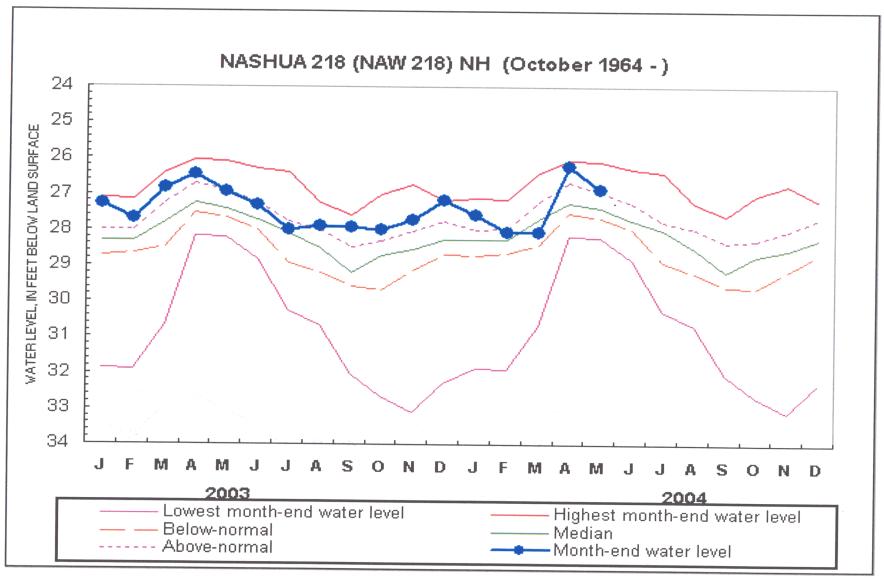


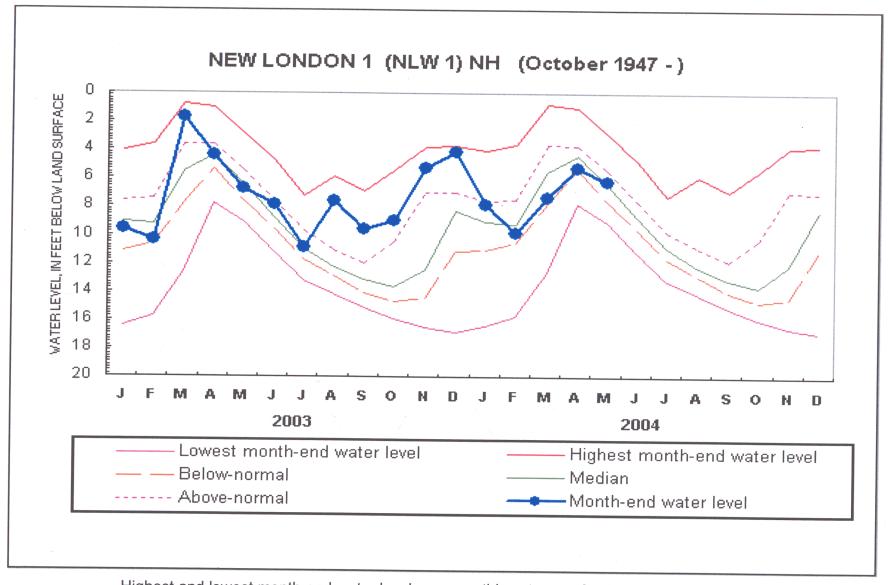


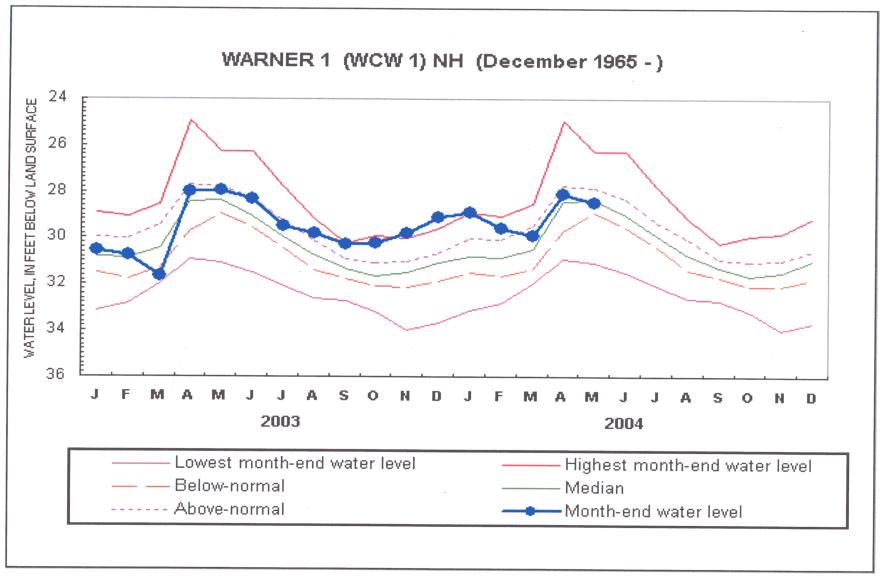




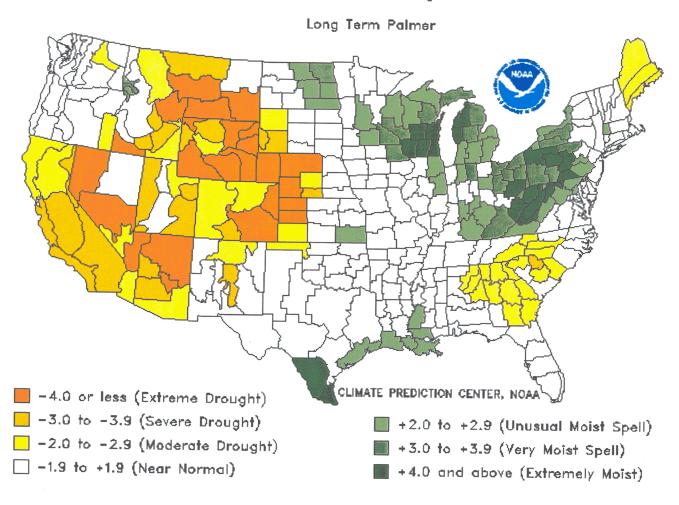
Source: NH DES, Dam Bureau, USGS





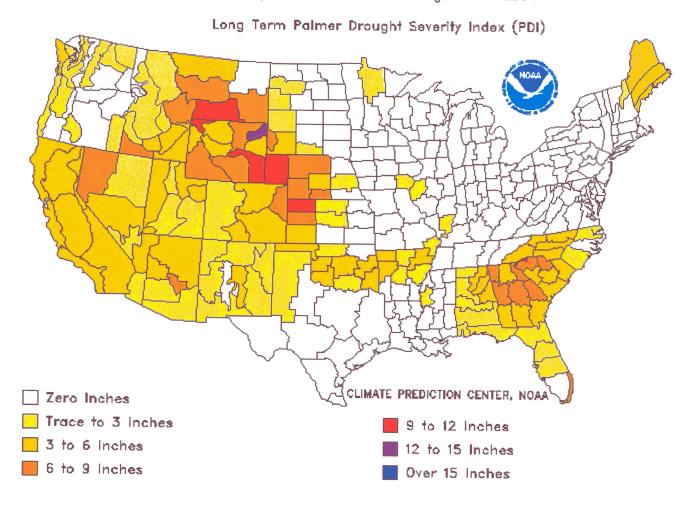


#### Drought Severity Index by Division Weekly Value for Period Ending 12 JUN 2004



Additional Precip. Needed (In.) to Bring PDI to -0.5

Weekly Value for Period Ending 12 JUN 2004



This is the amount of rainfall required in a week's time to bring the index back to zero inches required.